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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,333

01/11/2006

Wilfried Hofmann

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EXAMINER

GREENE, JASON M

ART UNIT

PAPER NUMBER

1797

NOTIFICATION DATE

DELIVERY MODE

08/20/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@senniger.com

Office Action Summary	Application No. 10/564,333	Applicant(s) HOFMANN, WILFRIED	
	Examiner Jason M. Greene	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-62 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32 is/are allowed.
- 6) ☒ Claim(s) 42, 45 and 51-62 is/are rejected.
- 7) ☒ Claim(s) 33-50 and 52-62 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/11/06; 7/11/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claims 33-50 and 52-62 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 33-50 and 52-62 all depend from cancelled claims. It appears as though the dependency of the claims were not corrected to correspond to the new independent claims. Accordingly, the claims have been treated as though their dependencies were corrected to correspond to the new claim numbering for examination purposes. Specifically, claims 33-36, 42-44 and 46-48 have been as though they depended from claim 32. Claim 37 has been treated as though it depended from claim 36. Claims 38 and 40 have been treated as though they depended from claim 37. Claim 39 has been treated as though it depended from claim 38. Claim 41 has been treated as though it depended from claim 40. Claim 45 has been treated as though it depended from claim 44. Claims 49 and 50 have been treated as though they depended from 48. Claims 52-55 and 57-62 have been treated as though they depended from claim 51. Claim 56 has been treated as though it depended from claim 55. If this assumption is correct, the Examiner suggests Applicants amend the claims accordingly.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 42, 45 and 51-62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 42 is indefinite since it is not clear if the process pressure of 5-100 Pa is absolute pressure or gauge pressure.

5. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131

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USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 45 recites the broad recitation of the microwave radiation having a frequency above 25 GHz, and the claim also recites the microwave radiation preferably being in a frequency range at which the material of the membrane layer has a peak in its absorption curve, which is the narrower statement of the range/limitation.

6. Claim 51 recites the limitation "the starting material" in line 7. There is insufficient antecedent basis for this limitation in the claim. In particular, it is not clear if the phrase "the starting material" is intended to be the material used to form the membrane layer before it is applied on the carrier layer or if it is meant to be the material after it is applied on the carrier layer and prior to a treatment.

Claims 52-62 are likewise rejected since they depend from claim 51.

Allowable Subject Matter

7. Claim 32 is allowed.

8. Claims 33-50 would be allowable if rewritten or amended to overcome the objections and rejections under 35 USC 112, second paragraph set forth above.

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9. The following is a statement of reasons for the indication of allowable subject matter:

Tai et al. (US 6,622,872 B1) discloses a method for producing a filter element comprising the successive steps of application of a membrane layer (100) to a carrier substrate (104), etching a membrane chamber (120) on the side of the carrier substrate opposite to the membrane layer, so that a residual layer of the carrier substrate still remains (Fig. 1C), generation of pores (132) in the membrane layer by means of a lithographic and etching process in order to create a perforated membrane (Fig. 1D), removal of the residual layer of the membrane chamber by etching in order to expose the membrane layer of the membrane chamber (Fig. 1E), and subjecting the membrane to an additional treatment (coating with parylene) in order to increase its mechanical strength (Fig. 1F) in Figs. 1A-1F and col. 1, line 66 to col. 4, line 2.

European Patent Application Publication EP 0 879 635 A1 discloses a method for producing a filter element comprising the successive steps of application of a membrane layer (2) to a carrier substrate (1), etching a membrane chamber (8) on the side of the carrier substrate opposite to the membrane layer, so that a residual layer of the carrier substrate still remains, generation of pores (7) in the membrane layer by means of a lithographic and etching process in order to create a perforated membrane, and removal of the residual layer of the membrane chamber by etching in order to expose the membrane layer of the membrane chamber in Figs. 1A-1D and col. 5, line 42 to col. 6, line 52.

Dalton et al. (US 7,282,148 B2) discloses a method for producing a filter element comprising the successive steps of application of a membrane layer (1) to a carrier substrate, etching a membrane chamber (2) on the side of the carrier substrate opposite to the membrane layer, so that a residual layer of the carrier substrate still remains, generation of pores in the membrane layer by means of a lithographic and etching process in order to create a perforated membrane, and removal of the residual layer of the membrane chamber by etching in order to expose the membrane layer of the membrane chamber in Fig. 1 and col. 4, line 64 to col. 6, line 10.

The prior art made of record does not teach or fairly suggest the method of claim 32 comprising subjecting the membrane to a treatment to increase its mechanical strength, wherein the treatment comprises one or more of the methods recited in steps 5.1 to 5.4.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Carboneri et al., Franz et al., Northrup et al. and Yagi et al. references disclose similar membranes.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571)

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272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason M. Greene
Primary Examiner
Art Unit 1797

/Jason M. Greene/
8/15/08

jmg
August 15, 2008